

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TYLER DIVISION**

**SOVERAIN SOFTWARE LLC,**

**Plaintiff**

**v.**

**AMAZON.COM, INC.**

**Defendant**

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**6:04-CV-14**

**MEMORANDUM OPINION**

This Claim Construction Opinion interprets the disputed terms in United States Patent Nos.: 5,708,780 (the “’780 patent”), 5,715,314 (the “’314 patent”), and 5,909,492 (the “’492 patent”).

**BACKGROUND**

In this case, Soverain Software LLC alleges that Amazon.com, Inc. infringes three patents Soverain acquired from Open Market, Inc. The ’780 patent, issued in 1998, relates to methods for controlling and monitoring access to network servers through the use of a session identifier. This session identifier allows web servers to recognize and service multiple requests from the same client and control access to the server without repeated authentication.

The ’492 patent, issued in 1999, is a continuation of the ’314 patent, which issued in 1998. Because these patents share the same specifications and have many disputed claim terms in common, the Court construes their claim terms together. These patents describe a network-based sales system that includes a buyer computer, a merchant computer, and a payment computer. The ’314 patent utilizes a virtual shopping cart and allows item selection and payment to be processed over a

network. The '492 patent utilizes hypertext statement documents to allow a user to track details of past purchases.

### APPLICABLE LAW

In claim construction, courts examine the patent's intrinsic evidence to define the patented invention's scope. *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 338 F.3d 858, 861 (Fed. Cir. 2004) (citing cases); *Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). This intrinsic evidence includes the specification and the prosecution history. *C.R. Bard, Inc.*, 338 F.3d at 861. First, courts give "claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003). Second, the court must determine whether it must deviate from the claim language's ordinary and accustomed meaning. *Bell Atl. Network Servs., Inc.*, 262 F.3d at 1268. There is a "heavy presumption" that claim terms carry their ordinary and customary meaning, which is only rebutted if the patent "expresses an intention to impart novel meaning to [them]." *Sunrace Roots Enter. Co., LTD v. SRAM Corp.*, 336 F.3d 1298, 1302 (Fed. Cir. 2003); *Id.* "This presumption is overcome: (1) where the patentee has chosen to be his own lexicographer, or (2) where a claim term deprives the claim of clarity such that there is no means by which the scope of the claim may be ascertained from the language used." *Bell Atl. Network Servs., Inc.*, 262 F.3d at 1268. This presumption is also overcome if the inventor disavowed or disclaimed the scope of coverage. *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204 (Fed. Cir. 2002). When a court attempts to define a term, it "immerses itself in the specification, the prior art, and other evidence, such as the understanding of skilled artisans at the time of the invention, to discern the context and normal usage of the words in the patent claim." *Alloc, Inc.*, 342 F.3d at 1368.

“[A]mong the intrinsic evidence, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Teleflex, Inc. v. Ficos N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms. Also, the specification may resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Id.* However, the specification may not redefine particular claim terms away from their ordinary meanings unless the intrinsic evidence “clearly set[s] forth or clearly redefine[s] a claim term so as to put one reasonably skilled in the art on notice that the patentee intended to so redefine the claim term.” *Bell Atl. Network Servs., Inc.*, 262 F.3d at 1268 (internal quotations omitted). Thus, “although the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998). The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc., v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent.”).

Similarly, when a patentee acts as his own lexicographer to coin terms that have no ordinary and customary meanings in the art but does not define the terms, the court gives the term components their plain and customary meanings and infers the meaning of the phrase if the term components have well-recognized meanings. *See Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1372 (Fed. Cir. 2004) (“the components of the term have well-recognized meanings, which

allow the reader to infer the meaning of the entire phrase with reasonable confidence”). A patentee may define terms he coins “[s]o long as the meaning of an expression is made reasonably clear and its use is consistent within a patent disclosure.” *Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889 (Fed. Cir. 1984). But “[w]here a claim term has no ordinary and customary meaning, a court must resort to the remaining intrinsic evidence—the written description and the prosecution history—to obtain the meaning of that term.” *Goldenberg v. Cytogen, Inc.*, 373 F.3d 1158, 1164 (Fed. Cir. 2004) (citing *Lear Siegler*, 733 F.2d at 888-89).

The patents in suit also contain means-plus-function limitations that require construction. Where a claim limitation is expressed in “means plus function” language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112, ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, 35 U.S.C. § 112, ¶ 6 mandates that “such a claim limitation ‘be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.’” *Id.* (citing 35 U.S.C. § 112, ¶ 6). Accordingly, when faced with means-plus-function limitations, courts “must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations].” *Id.*

Construing a means-plus-function limitation involves multiple inquiries. “The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation.” *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation’s function, “the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof.” *Id.* A “structure disclosed in the specification is ‘corresponding’ structure only if the specification or

prosecution history clearly links or associates that structure to the function recited in the claim.” *Id.* Moreover, the focus of the “corresponding structure” inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is “clearly linked or associated with the [recited] function.” *Id.*

### **THE '780 PATENT**<sup>1</sup>

The Court interprets seventeen disputed terms in the '780 patent, in groups relating to: (1) path name in a URL, (2) session, (3) hypertext, (4) authentication server, and (5) means-plus-function elements.

#### **Path Name in a URL Terms**

*“Path name in a uniform resource locator”*

The Court adopts Soverain’s proposed construction and construes “path name in a uniform resource locator” to mean “a sequence of zero or more elements that follows the host address in a URL.” The primary dispute between the parties is whether the path name includes the file name. Amazon proposes that the term means “the name of the directories leading to the file identified by the URL. Nothing after the file name is part of the path name.”

The parties seem to agree that the ordinary and accustomed meaning to those skilled in the art would include the file name. Amazon argues that the patentee acted as his own lexicographer and defined the term to not include the file name. The parties focus on the following paragraph of the specification, which describes the URL naming system.

The URL naming system consists of three parts: the transfer format, the host name of the machine that holds the file, and the path to the file. An example of a URL may be:

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<sup>1</sup> Appendix B contains the relevant claims with the disputed terms in bold.

http://www.college.univ.edu/Adir/Bdir/Cdir/page.html,  
where “http” represents the transfer protocol; a colon and two forward slashes (://)  
are used to separate the transfer format from the host name; “www.college.univ.edu”  
is the host name in which “www” denotes that the file being requested is a Web page;  
“/Adir/Bdir/Cdir” is a set of directory names in a tree structure, or a path, on the host  
machine; and “page.html” is the file name with an indication that the file is written  
in HTML.

Amazon contends that here the patentee expressly states that the file name (“page.html”) is not a part  
of the path (“/Adir/Bdir/Cdir”). Soverain argues that this description expressly states there are only  
three parts to the URL naming system, and therefore the file name must be included in the path  
name. The Court agrees. While “page.html” may separately be referred to as the file name, it is  
included in the path name.

*“Appending . . . [the session identifier] . . . as part of a . . . path name in a uniform resource  
locator”*

The Court construes this term to mean “tagging, adding, affixing or supplementing [the  
session identifier] to the URL as part of a path name.” Amazon agrees that “appending” can  
encompass “tagging, adding, affixing or supplementing.” Amazon disagrees that this is done to the  
URL as a whole, and contends it must be limited to the “path name,” as opposed to the file name.  
Given the Court’s construction of “path name,” this argument is moot.

### **Session-Related Terms**

*“Session”*

“Session” means “a series of requests and responses to perform a complete task or set of  
tasks between a client and a server system.” Amazon’s proposed construction limits a session to an  
“uninterrupted series of requests and responses.” This limitation is unsupported by the specification.  
The specification contrasts two embodiments in which the user gains access to a document. In one,

the user has a prepaid subscription and gains access by an authorization indicator embedded in a session identifier, allowing the user to access the document multiple times during the prepaid period. In the other embodiment, the user is charged and billed each time he views the document. Taken together, these embodiments disclose that a session can be either interrupted or uninterrupted. Additionally, Amazon's proposed construction requires that the client be identified by its network address and user name or address. This limitation is unsupported by the claim language. Claim 2, which is dependent to claim 1, requires that the session identifier include a user identifier. It is presumed that an independent claim does not include a limitation that is expressed in a dependent claim. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004). Accordingly, in order for claim 2 to have any meaning, claim 1 must not require the inclusion of a user identifier in the session identifier. Thus, the preferred embodiments and the claim language contradict Amazon's proposed limitations.

*"Session Identifier" and "Authorization Identifier"*

A "session identifier" is "a text string that identifies a session." Similarly, an "authorization identifier" is "a text string used in granting (access) rights." At the time of the '780 patent's application and issue, an identifier was understood to be "any text string used as a label." See *Microsoft Press Computer Dictionary*, at 205 (2d ed. 1994); *Microsoft Press Computer Dictionary*, at 243 (3d ed. 1997).

For both "session identifier" and "authorization identifier," Amazon proposes the construction, "a value with multiple fields whose cryptographic authentication indicates to an access-controlling server that the client identified in the session identifier is authorized to access the requested file." These constructions are too narrow and improperly import many of the limitations

from the specifications and preferred embodiments into the claim language. Further, Amazon's proposed constructions do not distinguish a session identifier from an authorization identifier.

### **Hypertext-Related Terms**

#### *"Hypertext transfer protocol"*

"Hypertext transfer protocol" ("HTTP") is "the client/server protocol used to access information on the World Wide Web." The parties are in apparent agreement as to what HTTP is, but they disagree as to whether HTTP is limited to the version that existed at the time of the patent application or whether it includes future versions. On June 7, 1995, HTTP draft version 1.0 was in use; today, version 1.1 is used.

As used in this patent, HTTP is a generic term not limited to the version in use at the time the application was filed. This situation is different from that in *Shering Corp. v. Amgen Inc.*, 222 F.3d 1347 (Fed. Cir. 2000). In *Shering*, the parties dispute over the claim term's meaning was essentially a dispute over the scope of what was claimed to have been discovered or invented. *Id.* Here, Soverain is not claiming to have invented HTTP, but only that the methods described use HTTP. There is no reason to think that one skilled in the art would think the claims were limited to only the then-current HTTP, especially since the then-current version was a "draft," which implies a subsequent version.

#### *"Hypertext pages" and "Hypertext links/links in a hypertext page"*

"Hypertext pages" are "screen renderings referenced by or including hypertext links." "Hypertext links" or "links in a hypertext page" mean "a non-sequential web association which the user can use to navigate through related topics." Amazon argues that "hypertext pages" does not include pages that do not contain hypertext. This limitation is not supported by the claim language



or specifications. Amazon's proposed construction of "hypertext links" is similar to that which the Court adopts, but is less straightforward.

*"Service request(s)"*

"Service request(s)" means "a solicitation of services from a client to a server. A service request may entail the exchange of any number of messages between the client and the server." *See IEEE Standard Dictionary of Elec. & Elecs. Terms*, at 974-74 (6th ed. 1996). Amazon's proposed construction limits this to an HTTP request message using the 1995 version of HTTP. For reasons already discussed, the Court rejects this limitation.

**Authentication Server**

"Authentication server" means a "server that provides session identifiers for service requests." This term is expressly defined in claim 12. Amazon urges the Court to also define "server that provides session identifiers for service requests to multiple servers." Given the Court's constructions of session identifiers and services requests, this is unnecessary.

**Means-Plus-Function Terms**

For the means-plus-function terms, Amazon's proposed constructions include details of the source code example as a necessary part of the corresponding structure. The Court agrees with Soverain that limiting the claims beyond what is disclosed in the block diagrams is not required by case law and penalizes the inventors for submitting software code during prosecution. *See Robotic Vision Sys. Inc. v. View Eng'g, Inc.*, 112 F.3d 1163, 1166 (Fed. Cir. 1997) ("When disclosure of software is required, it is generally sufficient if the functions of the software are disclosed, it usually being the case that creation of the specific code is within the skill of the art."); *Fonar Corp. v. Gen. Elec. Co.*, 107 F.3d 1543, 1549 (Fed. Cir. 1997) ("As a general rule, where software constitutes part

of a best mode of carrying out an invention, description of such a best mode is satisfied by a disclosure of the functions of the software.”). Accordingly, the Court does not include source code in identifying the corresponding structures. Amazon asks the Court to construe additional clauses in the mean-plus-function terms, but the Court declines to do so. These clauses are additional limitations separate from the means-plus-function elements and are not subject to 35 U.S.C. section 112, paragraph 6.

*“Means for receiving service requests from clients and for determining whether a service request includes a session identifier”<sup>2</sup>*

This element claims two functions: “receiving service requests” and “determining whether a service request includes a session identifier.” The specification identifies as a corresponding structure to both functions the content server (element 120 in Fig. 2A and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including block 104, and any structural equivalents. Thus, the Court construes “means for receiving service requests from clients and for determining whether a service request includes a session identifier” as “content server (element 120 in Fig. 2A and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including block 104,” and equivalent structures.

*“Means for appending the session identifier as part of a path name in a uniform resource locator”<sup>3</sup>*

This element claims the function of “appending the session identifier as part of a path name

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<sup>2</sup> Amazon asks the Court to construe “means for receiving service requests from clients and for determining whether a service request includes a session identifier, *wherein communications between the client and server system are according to hypertext transfer protocol.*”

<sup>3</sup> Amazon asks the Court to construe “means for appending the session identifier as part of a path name in a uniform resource locator *in response to an initial service request in a session of requests.*” Amazon also asks the Court to construe “means for appending a session identifier as part of a path name in a uniform resource locator, *wherein communications between the client and server system are according to hypertext transfer protocol.*” Because the italicized clauses are additional limitations, these terms do not require separate construction.

in a uniform resource locator.” As a corresponding structure, the specification identifies a server such as authentication server (element 200 in Figs. 2A and 2B, element 54 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2B, including blocks 228, 230, and 232, and any structural equivalents. Accordingly, the Court construes “means for appending the session identifier as part of a path name in a uniform resource locator” as “authentication server (element 200 in Figs. 2A and 2B, element 54 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2B, including blocks 228, 230, and 232,” and equivalent structures.

*“Means for servicing service requests from a client which include the session identifier”<sup>4</sup>*

This element claims the function of “servicing service requests from a client which include the session identifier.” The content server (element 120 in Fig. 2A and element 52 in Fig. 3), executing a computer program implementing algorithm shown in Fig. 2A, including blocks 110, 112, and 116, or the client server exchange 9 and 10 in Fig. 3, and structural equivalents thereto are identified as corresponding structures by the specification. Therefore, the Court construes “means for servicing service requests from a client which include the session identifier” as “content server (element 120 in Fig. 2A and element 52 in Fig. 3), executing a computer program implementing algorithm shown in Fig. 2A, including blocks 110, 112, and 116, or the client server exchange 9 and 10 in Fig. 3,” and equivalent structures.

*“Means for providing the session identifier”<sup>5</sup>*

This element claims the function of “providing the session identifier.” The specification

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<sup>4</sup> Amazon asks the Court to construe “means for servicing service requests from a client which include the session identifier, the subsequent service request being processed in the session.”

<sup>5</sup> Amazon asks the Court to construe “means for providing the session identifier is in a server system which services the requests.”

identifies as a corresponding structure a server such as the authentication server (element 200 in Figs. 2A and 2B, element 54 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2B, including blocks 228, 230, and 232, and structural equivalents. Consequently, the Court construes “means for providing the session identifier” as “authentication server (element 200 in Figs. 2A and 2B, element 54 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2B, including blocks 228, 230, and 232,” and equivalent structures.

*“Means for responding to requests for hypertext pages”<sup>6</sup>*

This element claims the function of “responding to requests for hypertext pages.” The identified corresponding structure is the content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including block 116, or implementing step 10 in the client server exchange shown in Fig. 3, and structural equivalents. The Court construes “means for responding to requests for hypertext pages” as “content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including block 116, or implementing step 10 in the client server exchange shown in Fig. 3,” and equivalent structures.

*“Means for responding to further requests derived from links in the hypertext pages”*

The claimed function is “responding to further requests derived from links in the hypertext pages.” The identified corresponding structure comprises, for example, the content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing the algorithm shown in Fig. 2A, including block 116, or implementing steps 9 and 10 in the client server

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<sup>6</sup> Amazon asks the Court to construe “means for responding to requests for hypertext pages *received from a client through the network by returning the requested hypertext pages to the client.*”

exchange shown in Fig. 3, and equivalents. Further corresponding structure is the content server, element 53, in Fig. 3, executing appropriate software, including step 10, and equivalents. Requests derived from links in a hypertext page are processed as discussed in the construction of “means for responding to requests for hypertext pages.” The Court construes “means for responding to further requests derived from links in the hypertext pages” as “content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing the algorithm shown in Fig. 2A, including block 116, or implementing steps 9 and 10 in the client server exchange shown in Fig. 3,” and structures equivalent to any of these combinations.

*“Means for tracking the further requests derived from a particular hypertext page”*

The claimed function is “tracking the further requests derived from a particular hypertext page.” The corresponding structure in the patent comprises, for example, the content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including blocks 108, 114, and 116, and structural equivalents. The Court construes “means for tracking the further requests derived from a particular hypertext page” as “content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including blocks 108, 114, and 116,” and equivalent structures.

#### **THE '314 AND '492 PATENTS<sup>7</sup>**

The Court interprets twenty-one terms in the '314 and '492 patents, in groups relating to: (1) messages, (2) computers, (3) connections and networks, (4) databases, and (5) purchases and statements.

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<sup>7</sup> Appendix B contains the relevant claims with the disputed terms in bold.

### Message-Related Terms

#### *“Message”*

“Message” means “a unit of information sent electronically.” Amazon’s proposed construction, which limits the term to information communicated from one entity to another entity according to a structured protocol, imposes limitations that are not supported by the claim language or the specification.

*“Shopping cart message(s)”*; *“Payment message”*; *“Access message”*; *“Transaction detail hypertext link”*; and *“Product request message”*

The Court construes: “shopping cart message(s)” to mean “a message concerning a shopping cart”; “payment message” to mean “a message relating to a payment for one or more products”; “access message” to mean “a message providing access to one or more products”; “transaction detail hypertext link” to mean “hypertext link to a transaction detail”; and “product request message” to mean “a message related to a request for a product.”

The parties agree that these terms did not have ordinary and customary meanings to one skilled in the art when the patent issued. The parties’ primary disagreement is over Amazon’s attempt to include a cryptographic key in the construction of each of these terms. Amazon argues that the patentee so limited the terms in the specification. Soverain argues that such a construction improperly imports limitations from the specification. Soverain also points out there are specific instances where a dependent claim includes cryptography but the independent claim does not, making it improper to impute the cryptography limitation into each of these claim terms when it is not expressly included in the claim language.

Amazon’s argument is not supported by the claim language. Words used in multiple claims

should be given consistent meanings. *Fin Control Sys. Pty, Ltd. v. OAM Inc.*, 265 F.3d 1311, 1318 (Fed. Cir. 2001). When a dependent claim includes a limitation that the independent claim does not include, a presumption is raised that the independent claim does not include the limitation. *Liebel-Flarsheim Co.*, 358 F.3d at 910. Amazon's argument fails because the claims recite instances where each of the terms is used without a cryptographic key.

Claim 1 of the '314 patent states, "A network based sales system, comprising: . . . a payment message to be sent to said payment computer that comprises a product identifier identifying said product;". As described here, the payment message is not required to contain a cryptographic key. Claim 33 of the '314 patent also does not require a cryptographic key as part of the payment message. In claims 12, 14, 17, 18, 19, 23, 26, and 30 of the '492 patent, the payment message comprises: "a product identifier identifying the product that the user desires to buy," "a universal resource locator," "a merchant computer identifier," or a "payment amount." In claims 27 and 28, which are dependent on claims 19 and 27 respectively, the payment message includes a payment message authenticator based on a cryptographic key.

Claim 34 of the '314 patent does not require shopping cart messages to include cryptographic keys: "respective shopping cart messages to said shopping cart computer each of which comprises a product identifier identifying one of said plurality of products;". "Shopping cart messages" is used in claims 17, 18, 35, and 36 of the '492 patent, none of which state it includes a cryptographic key.

In the '492 patent, independent claims 1, 5, 11, 13, 31, and 33 do not state that the access message includes a cryptographic key, but independent claims 19 and 30 do require the cryptography. Claim 32, which is dependent on claim 31 (not requiring cryptography), does require "the access message to be created using a cryptographic key." Claim 34, which is dependent on



claim 33 (not requiring cryptography), describes “the access message in a cryptographic process to ensure that the user has paid for the product.”

In the '492 patent, claims 7, 15, and 16 describe hypertext statement systems involving a transaction detail hypertext link, but none include a cryptographic key. Similarly, claims 1, 5, 37, and 38 of the '492 patent utilize a product request message, but none describe it as containing a cryptographic key.

For these reasons, including a cryptographic key in these terms' constructions is contradicted by the claim language.

### **Computer-Related Terms**

#### *“Computer”*

The Court adopts Soverain's construction and defines “computer” to mean “a functional unit that can perform substantial computation, including numerous arithmetic operations, or logic operations without human intervention.” This definition reflects the ordinary meaning to one skilled in the art. *See IEEE Standard Dictionary of Elec. & Elecs. Terms*, at 192 (6th ed. 1996). The Court rejects Amazon's proposed definition, which limits a “computer” to a single device, because it is inconsistent with the IEEE definition and the specifications, which do not require the computers to be dedicated to a single unique function.

#### *“Payment computer”*

The Court defines “payment computer” to mean “a computer processing payment information.” Although the parties agree that “payment computer” does not have an ordinary and customary meaning in the art, the term “payment” has an ordinary and customary meaning, and the Court has already construed the term “computer.” Accordingly, the Court is able to infer the



phrase's meaning from the ordinary meaning of payment and the construed meaning of computer without importing limitations from the specification. *See Bancorp Servs*, 359 F.3d at 1372 (“the components of the term have well-recognized meanings, which allow the reader to infer the meaning of the entire phrase with reasonable confidence”). Amazon's proposed construction, which cobbles together descriptions from the specification, requires the payment computer to “accept and verify payment by the buyer, and authorize purchase of products from the merchant.” Such a construction impermissibly reads in limitations from the specification.

#### **Connection- and Network-Related Terms**

##### *“Connected to”*

The Court construes “connected to” to mean “having a link to . . . to send or receive data.” Amazon's proposed definition requires the things that are “connected to” one another be directly joined. This is too limiting. Although the parties agree that the claims require the shopping cart computer to modify the shopping cart in the shopping cart database, there is no basis to require the computer and database be directly connected. All that is required is a link between the computer and database over which to send or receive data. *See IEEE Standard Dictionary of Elec. & Elecs. Terms*, at 203 (6th ed. 1996) (defining “connection” (software) as “an association established between functional units for conveying information”).

##### *“Interconnected by [a computer network or public packet switched computer network]”*

This term means “to be connected by a [computer network or public packet switched computer network].” Like Amazon's proposed construction of “connected to . . .”, its proposed construction of “interconnected by [a computer network or public packet switched computer network]” is too restrictive because it requires that each computer be able to exchange messages with

each of the other computers. This is unsupported by the intrinsic evidence.

*“Public packet switched computer network”*

“Public packet switched computer network” means “a packet switched computer network, accessible by the public through communication common carriers to provide data transmission services.” “Packet switching” means “a message-delivery technique in which small units of information (packets) are relayed through stations in a computer network preferably along the best route available between the source and the destination.” *See IEEE Standard Dictionary of Elec. & Elecs. Terms*, at 741 (6th ed. 1996) (defining “packet switching”). “Public data network” is “a network established and operated by common carriers for the specific purpose of providing low error-rate data transmission services to the public.” *See IEEE Standard Dictionary of Elec. & Elecs. Terms*, at 834 (6th ed. 1996) (defining “public data network”).

**Database-Related Terms**

*“Database”*

The Court construes “database” to mean “a collection of logically related data stored together in one or more computerized files.” *See IEEE Standard Dictionary of Elec. & Elecs. Terms*, at 251 (6th ed. 1996) (defining “database”). The parties dispute the relevance of “stored together” in the IEEE Dictionary definition. Soverain’s proposed construction would not limit a database to data stored together. This is too broad to reflect the ordinary and accustomed meaning to one of ordinary skill in the art. Amazon’s proposed construction limits a database to data records maintained in a single file. This is too narrow.

*“Merchant database”*

“Merchant database” means “a database of or related to a merchant.” This is similar to the

issue in the “payment computer” construction, where the entire term did not have a customary and ordinary meaning at the time the claim was patented. “Merchant” had an ordinary meaning at that time, and the Court has already construed “database.” Like it did for “payment computer,” the Court is able to infer the meaning of “merchant database” from the ordinary meaning of merchant and the construed meaning of database. *See Bancorp Servs.*, 359 F.3d at 1372. The Court rejects Amazon’s proposed construction because it impermissibly limits the term and excludes one of the preferred embodiments.

*“Creat[e] [a database]”*

“Creat[e] [a database]” means “to produce a new database or update an existing database.” This is consistent with the preferred embodiments and the plain and ordinary meaning of create. *See Webster’s Third New Int’l Dictionary*, at 532 (1993) (defining “create” as “to bring into existence” or “to cause to be or to produce by fiat or by mental, moral, or legal action” or “to bring about by a course of action or behavior”). Amazon’s proposed construction would limit the term to only when a new database structure is brought into existence for the first time. Such a construction imputes limitations from the specifications and ignores that in one embodiment the creation computer “updates a remote advertising document database on a merchant computer.” ’314 Patent at 4:66-5:1.

*“Shopping cart”*

The patentee acted as his own lexicographer and defined “shopping cart” to mean “a stored representation of a collection of products.” ’314 Patent, claims 34-39; ’492 Patent, claims 17, 18, 35, & 36. Amazon argues that “collection” must mean at least two products. Soverain contends that “collection” could mean zero, one, two, or more products. Although one claim limitation requires

that payment be made for a “plurality of products,” the claims do not require that the shopping cart always contain multiple, or any, products. *See* ’314 Patent, claim 34. From this distinction the Court finds “collection” does not necessarily mean at least two, but can refer to zero, one, or more products.

*“Shopping cart database”*

“Shopping cart database” is expressly defined in the claims as “a database of stored representations of collections of products.” ’314 Patent, claims 34 & 39; ’492 Patent, claims 17, 18, 35, & 36. Amazon’s proposed construction limits the term’s meaning to a single database, but this limitation is not supported by the claim language.

*“Modif[y] [the shopping cart in the shopping cart database]” and “Record [] . . . in a database”*

“Modif[y] [the shopping cart in the shopping cart database]” means “to change [an instance of a shopping cart in a shopping cart database].” “Record [] . . . in a database” means “store[] in a database.” These constructions reflect the ordinary meanings of the terms. Amazon’s constructions impose a direct-action limitation on the terms requiring the acting computer to directly perform the action rather than cause the action to occur. There is no basis for this limitation, and accordingly the Court rejects it.

*“Plurality of products added”/ “[add a] plurality of respective products to a shopping cart”*

The Court construes these terms to mean “product identifiers which are added to an instance of a shopping cart in the shopping cart database.” Amazon’s proposed construction would include all products previously added to the shopping cart, including those that the user has deleted. Soverain’s construction, which the Court adopts, determines which products are included in the “plurality of products” as those items that are in the shopping cart when the determination is made.

This interpretation is more consistent with the context of the claim language.

#### **Purchase and Statement Terms**

*“Statement document comprising the purchase transaction records”*

As it is described in the claims, the Court construes “statement document comprising the purchase transaction records” to mean “a document that includes purchase transaction records.” *See* ’492 patent, claims 6, 10, 15, & 16.

*“hypertext link”/ “links in a hypertext page”*

The Court construed this term under the ’780 patent and finds it has the same meaning in the ’314 and ’492 patents: “a non-sequential web association which the user can use to navigate through related topics.”

#### **CONCLUSION**

For the foregoing reasons, the Court interprets the claim language in this case in the manner set forth above. For ease of reference, the Court’s interpretations of the claims are set forth in a table as Appendix A. The claims with the disputed terms in bold are set forth in Appendix B.

**So ORDERED and SIGNED this 7th day of April, 2005.**

A handwritten signature in black ink, appearing to read 'Leonard Davis', written over a horizontal line.

**LEONARD DAVIS**  
**UNITED STATES DISTRICT JUDGE**

## APPENDIX A

U.S. Patent No. 5,708,780		
	DISPUTED CLAIM TERMS	COURT'S CONSTRUCTION
1.	<b>appending...[the session identifier]...as part of a...path name in a uniform resource locator</b>  Claims 1, 22, 24, 26, 28, 32, 40	Tagging, adding, affixing or supplementing [the session identifier] to the URL as part of a path name.
2.	<b>authentication server</b>  Claim 12	Server that provides session identifiers for service requests.
3.	<b>authorization identifier</b>  Claim 28	A text string used in granting (access) rights.
4.	<b>document(s)</b>  Claims 24, 28	<b>[AGREED]</b> Any type of digital data.
5.	<b>hypertext links/links in a hypertext page</b>  Claims 22, 40	A non-sequential web association which the user can use to navigate through related topics.
6.	<b>hypertext pages</b>  Claims 22, 23, 40-43	Screen renderings referenced by or including hypertext links.
7.	<b>hypertext transfer protocol</b>  Claims 1, 22, 24, 26, 32, 40	Also known as HTTP, the client/server protocol used to access information on the World Wide Web.

U.S. Patent No. 5,708,780		
	DISPUTED CLAIM TERMS	COURT'S CONSTRUCTION
8.	<b>path name in a uniform resource locator</b>  Claims 1, 22, 24, 26, 32, 40	A sequence of zero or more elements that follows the host address in a URL.
9.	<b>service request(s)</b>  Claims 1, 5, 10, 12, 22, 24, 26, 28, 32	A solicitation of services from a client to a server. A service request may entail the exchange of any number of messages between the client and the server.
10.	<b>session</b>  Claims 1, 4, 5, 10, 12, 22, 23, 24, 26, 32, 33, 35, 40, 41	A series of requests and responses to perform a complete task or set of tasks between a client and a server system.
11.	<b>session identifier</b>  Claims 1, 4, 10, 12, 22, 23, 24, 26, 32, 33, 35, 40, 41	A text string that identifies a session.
12.	<b>means for receiving service requests from clients and for determining whether a service request includes a session identifier</b>  Claim 32	Content server (element 120 in Fig. 2A and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including block 104.
13.	<b>means for appending the session identifier as part of a path name in a uniform resource locator</b>  Claims 32, 40	Authentication server (element 200 in Figs. 2A and 2B, element 54 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2B, including blocks 228, 230, and 232.



U.S. Patent No. 5,708,780		
	DISPUTED CLAIM TERMS	COURT'S CONSTRUCTION
14.	means for servicing service requests from a client which include the session identifier  Claim 32	Content server (element 120 in Fig. 2A and element 52 in Fig. 3), executing a computer program implementing algorithm shown in Fig. 2A, including blocks 110, 112, and 116, or the client server exchange 9 and 10 in Fig. 3.
15.	means for providing the session identifier  Claim 33	Authentication server (element 200 in Figs. 2A and 2B, element 54 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2B, including blocks 228, 230, and 232.
16.	means for responding to requests for hypertext pages  Claim 40	Content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including block 116, or implementing step 10 in the client server exchange shown in Fig. 3.
17.	means for responding to further requests derived from links in the hypertext pages  Claim 40	Content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing the algorithm shown in Fig. 2A, including block 116, or implementing steps 9 and 10 in the client server exchange shown in Fig. 3.
18.	means for tracking the further requests derived from a particular hypertext page  Claim 40	Content server (element 120 in Figs. 2A and 2B, and element 52 in Fig. 3), executing a computer program implementing algorithm steps as shown in Fig. 2A, including blocks 108, 114, and 116.



U.S. Patent Nos. 5,715,314 and/or 5,909,492		
	DISPUTED CLAIM TERMS	COURT'S CONSTRUCTION
19.	<b>access message</b>  Claims 1-5 ('492)	A message providing access to one or more products.
20.	<b>computer</b>  Claims 34-39 ('314) Claims 1, 3, 4, 5, 15, 16, 17, 18, 35, 36, ('492)	A functional unit that can perform substantial computation, including numerous arithmetic operations, or logic operations without human intervention.
21.	<b>connected to</b>  Claims 34, 39 ('314) Claims 17, 18, 35, 36, ( '492)	Having a link to . . . to send or receive data.
232.	<b>creat[e] [a database]</b>  Claims 1, 5 ('492)	To produce a new database or update an existing database.
23.	<b>database</b>  Claims 34, 39 ('314) Claims 1, 5 ('492)	A collection of logically related data stored together in one or more computerized files.
24.	<b>digital advertisement</b>  Claims 1-5 ('492)	<b>[AGREED]</b> A digital notice identifying a product for sale, including the product's description, for display to a potential purchaser.
25.	<b>document(s)</b>  Claims 15, 16 ('492)	<b>[AGREED]</b> Any type of digital data.

U.S. Patent Nos. 5,715,314 and/or 5,909,492		
	DISPUTED CLAIM TERMS	COURT'S CONSTRUCTION
26.	<b>fetch shopping cart request</b>  Claims 37, 38 ('314)	[AGREED] A service request to retrieve a shopping cart.
27.	<b>hypertext link/links in a hypertext page</b>  Claims 15, 16 ('492)	A non-sequential web association which the user can use to navigate through related topics.
28.	<b>interconnected by a [computer network, a public packet switched computer network]</b>  Claims 34, 39 ('314) Claims 15-18, 35, 36 ('492)	To be connected by a [computer network or public packet switched computer network].
29.	<b>merchant database</b>  Claims 1-5, 38 ('492)	A database of or related to a merchant.
30.	<b>message</b>  Claims 34, 35, 39 ('314) Claims 1-5, 17, 18, 35, 36 ('492)	A unit of information sent electronically.
31.	<b>modif[y] [the shopping cart in the shopping cart database]</b>  Claims 34, 39 ('314) Claims 17, 18, 35, 36 ('492)	To change [an instance of a shopping cart in a shopping cart database].

U.S. Patent Nos. 5,715,314 and/or 5,909,492		
	DISPUTED CLAIM TERMS	COURT'S CONSTRUCTION
32.	<b>payment computer</b>  Claims 1, 5 ('492)	A computer processing payment information.
33.	<b>payment message</b>  Claims 34, 35, 39 ('314) Claims 17, 18, 35, 36 ('492)	A message relating to a payment for one or more products.
34.	<b>plurality of products added to...shopping cart/ [add a] plurality of respective products to a shopping cart</b>  Claims 34, 36, 38, 39 ('314) Claims 17, 18, 35, 36 ('492)	Product identifiers which are added to an instance of a shopping cart in the shopping cart database.
35.	<b>product(s)</b>  Claims 34, 36, 38, 39 ('314) Claims 1-5, 17, 18, 35, 36 ('492)	<b>[AGREED]</b> Anything that can be advertised, sold, and provided to a purchaser.
36.	<b>product fulfillment item(s)</b>  Claims 1, 3-5 ('492)	<b>[AGREED]</b> A product that can be transmitted over a network, or an identifier for a product that cannot be transmitted over a network.
37.	<b>product request message</b>  Claims 1, 5 ('492)	A message related to a request for a product.

U.S. Patent Nos. 5,715,314 and/or 5,909,492		
	DISPUTED CLAIM TERMS	COURT'S CONSTRUCTION
38.	<b>public packet switched computer network</b>  Claims 5, 15-18, 35, 36 ('492)	<p>A packet switched computer network, accessible by the public through communication common carriers to provide data transmission services.</p> <p>"Packet switching" means a message-delivery technique in which small units of information (packets) are relayed through stations in a computer network preferably along the best route available between the source and the destination.</p> <p>"Public data network" is a network established and operated by common carriers for the specific purpose of providing low error-rate data transmission services to public.</p>
39.	<b>record[] ... in a database</b>  Claims 15, 16 ('492)	Store[] in a database.
40.	<b>shopping cart</b>  Claims 34-39 ('314) Claims 7, 18, 35, 36 ('492)	A stored representation of a collection of products.
41.	<b>shopping cart computer</b>  Claims 34, 35, 39 ('314) Claims 17, 18, 35, 36 ('492)	<b>[AGREED]</b> A computer processing data associated with one or more shopping carts.
42.	<b>shopping cart database</b>  Claims 34, 39 ('314) Claims 17, 18 35, 36 ('492)	A database of stored representations of collections of products.

U.S. Patent Nos. 5,715,314 and/or 5,909,492		
	DISPUTED CLAIM TERMS	COURT'S CONSTRUCTION
43.	<b>shopping cart message(s)</b>  Claims 34, 39 ('492) Claims 17, 18, 35, 36 ('492)	A message concerning a shopping cart.
44.	<b>statement document comprising the purchase transaction records</b>  Claims 15, 16 ('492)	A document that includes purchase transaction records.
45.	<b>transaction detail hypertext link</b>  Claims 15, 16 ('492)	Hypertext link to transaction detail.
46.	<b>transmit[ting/ed]</b>  Claims 37, 38 ('314) Claims 1, 3-5, 15, 16 ('492)	<b>[AGREED]</b> To send information over a communications channel.

## APPENDIX B

### THE '780 PATENT

1. A method of processing **service requests** from a client to a server system through a network, said method comprising the steps of:
  - forwarding a **service request** from the client to the server system, wherein communications between the client and server system are according to **hypertext transfer protocol**;
  - returning a **session identifier** from the server system to the client; and
  - appending as part of a path name in a uniform resource locator the session identifier to the request and to subsequent service requests from the client to the server system within a session of requests.
4. A method as claimed in claim 1 wherein the server system records information from the **session identifier** in a transaction log in the server system.
5. A method as claimed in claim 4 wherein the server system tracks the access history of sequences of **service requests** within a **session** of requests.
8. A method as claimed in claim 4 wherein the server system maintains a data base relating customer information to access patterns.
9. A method as claimed in claim 8 wherein the information includes customer demographics.
10. A method as claimed in claim 1 wherein the server system assigns the **session identifier** to an initial **service request** to the server system.
12. A method as claimed in claim 1 wherein the server system comprises plural servers including an **authentication server** which provides **session identifiers** for **service requests** to multiple servers.
22. A method of processing **service requests** from a client to a server system through a network, said method comprising the steps of:
  - appending as part of a path name in a uniform resource locator a session identifier to the request, wherein communications between the client and server system are according to hypertext transfer protocol;
  - responding to requests for **hypertext pages** received from a client through the network by returning the requested **hypertext pages** to the client;
  - responding to further client requests related to **links in the hypertext pages**; and
  - tracking the further client requests related to a particular **hypertext page**.
23. A method as claimed in claim 22 wherein the requests include a common **session identifier** and the server system tracks client requests within a **session** of requests.
24. A method of processing service requests from a client to a server system through a network, said method comprising the steps of:
  - appending a session identifier to the request as part of a path name in a uniform resource locator, wherein communications between the client and server system are according to hypertext transfer protocol;
  - and
  - responding to requests for documents received from the client through the network by returning the requested documents wherein the documents are customized for a particular user based on a user profile.
26. A method of processing **service requests** from a client to a server system through a network, said method comprising the steps of:
  - appending a session identifier to the request as part of a path name in a uniform resource locator, wherein communications between the client and server system are according to hypertext transfer protocol;
  - responding to requests for information received from the client through the network by returning the requested information to the client; and
  - counting requests to particular information exclusive of repeated requests from a common client.
28. A method of processing **service requests** for a document received from a client through a network in which the document has been purchased by a user, said method comprising the steps of:



- responding to a request for a document received from a client through the network in which the document has been purchased by the user wherein communications between the client and server system are according to **hypertext transfer protocol**;
- appending an authorization identifier to the request as part of a path name in a uniform resource locator; and
- returning the requested document if the **authorization identifier** indicates that the user is authorized to access the document.
32. An information system on a network, comprising:
- means for receiving service requests from clients and for determining whether a service request includes a session identifier, wherein communications between the client and server system are according to hypertext transfer protocol;
  - means for appending the session identifier as part of a path name in a uniform resource locator in response to an initial service request in a session of requests; and
  - means for servicing service requests from a client which include the session identifier, the subsequent service request being processed in the session.
33. An information system as claimed in claim 32 wherein the means for providing the **session identifier** is in a server system which services the requests.
35. An information server system as claimed in claim 32 further comprising a transaction log for recording information from the **session identifier**.
38. An information system as claimed in claim 32 further comprising a data base relating customer information to access patterns.
39. An information system as claimed in claim 38 wherein the information includes customer demographics.
40. An information server on a network, comprising:
- means for appending a session identifier as part of a path name in a uniform resource locator, wherein communications between the client and server system are according to hypertext transfer protocol;
  - means for responding to requests for hypertext pages received from a client through the network by returning the requested hypertext pages to the client;
  - means for responding to further requests derived from links in the hypertext pages; and means for tracking the further requests derived from a particular hypertext page.
41. A server as claimed in claim 40 wherein the requests include a common **session identifier** and the server tracks requests within a **session** of requests.
42. A server as claimed in claim 41 further comprising a data base relating customer demographics to access patterns.

### THE '314 PATENT

34. A network-based sales system, comprising:
- at least one buyer **computer** for operation by a user desiring to buy products;
  - at least one shopping cart computer; and
  - a shopping cart database connected to said shopping cart computer;
- said buyer computer and said shopping cart computer being interconnected by a computer network;
- said buyer **computer** being programmed to receive a plurality of requests from a user to **add a plurality of respective products to a shopping cart** in said **shopping cart database**, and, in response to said requests to add said products, to send a plurality of respective **shopping cart messages** to said **shopping cart computer** each of which comprises a product identifier identifying one of said plurality of products;
- said shopping cart computer being programmed to receive said plurality of shopping cart messages, to modify said shopping cart in said shopping cart database to reflect said plurality of requests to add said plurality of products to said shopping cart, and to cause a payment message associated with said shopping cart to be created; and
- said buyer **computer** being programmed to receive a request from said user to purchase said

**plurality of products added to said shopping cart** and to cause said **payment message** to be activated to initiate a payment transaction for said **plurality of products added to said shopping cart**;

said **shopping cart** being a stored representation of a collection of products, said **shopping cart database** being a **database** of stored representations of collections of products, and said **shopping cart computer** being a **computer** that **modifies** said stored representations of collections of products in said **database**.

35. A network-based sales system in accordance with claim 34, wherein said **shopping cart computer** is programmed to cause said **payment message** to be created before said buyer **computer** causes said **payment message** to be activated.

36. A network-based sales system in accordance with claim 34, wherein said buyer **computer** is programmed to receive a request from said user to display said **plurality of products added to said shopping cart**.

37. A network-based sales system in accordance with claim 36, wherein said buyer **computer** is programmed to transmit a fetch **shopping cart** request to said **payment computer** in response to receipt of said request from said user.

38. A network-based sales system in accordance with claim 37, wherein:

said **payment computer** is programmed to respond to said fetch **shopping cart** request by transmitting a **message** to said buyer **computer** indicating said **plurality of products added to said shopping cart**; and

said buyer computer is programmed to display said plurality of products added to said shopping cart.

39. A method of operating a **shopping cart computer** in a computer network comprising at least one buyer **computer** for operation by a user desiring to buy products, at least one **shopping cart computer**, and a **shopping cart database connected to said shopping cart computer**, said method comprising the steps of:

receiving, at said **shopping cart computer**, a plurality of **shopping cart messages** sent to said **shopping cart computer** by said buyer **computer** in response to receipt of a plurality of requests from a user to **add a plurality of respective products to a shopping cart** in said **shopping cart database**, each of said **shopping cart messages** comprising a product identifier identifying one of said plurality of products;

modifying said shopping cart in said shopping cart database to reflect said plurality of requests to add said plurality of products to said shopping cart; and

causing a **payment message** associated with said **shopping cart** to be created;

said buyer **computer** being programmed to receive a request from said user to purchase said **plurality of products added to said shopping cart** and to cause said **payment message** to be activated to initiate a payment transaction for said **plurality of products added to said shopping cart**;

said **shopping cart** being a stored representation of a collection of products, said **shopping cart database** being a **database** of stored representations of collections of products, and said **shopping cart computer** being a **computer** that **modifies** said stored representations of collections of products in said **database**.

## THE '492 PATENT

1. A network-based sales system, comprising:

a **merchant database** comprising a plurality of digital advertisements and a plurality of respective product fulfillment items;

at least one creation computer for creating said merchant database; and

at least one merchant **computer** for causing said digital advertisements to be transmitted to a user and for causing advertised products to be transmitted to said user;

said creation computers, said merchant computer, and a payment computer being interconnected by a public packet switched computer network;



- said creation **computer** being programmed to **create** said **merchant database**, and to transmit said digital advertisements and said product fulfillment items over said network to said merchant **computer**;
- said merchant **computer** being programmed to receive said digital advertisements and product fulfillment items over said network, to receive over said network a request for a digital advertisement from a user, to cause said digital advertisement to be sent to said user over said network, to receive over said network from said user a **product request message** identifying an advertised product, to receive an **access message** over said network created by said **payment computer**, and to cause said product to be sent to said user in accordance with a product fulfillment item corresponding to said product and based upon receipt by the merchant **computer** of the **access message**.
2. A network-based sales system in accordance with claim 1, wherein each of said digital advertisements comprises an abstract of a product and a price.
  3. A network-based sales system in accordance with claim 2, wherein:
    - at least one of said product fulfillment items comprises a product itself; and
    - said creation **computer** is programmed to transmit said product to said merchant **computer** with said digital advertisements.
  4. A network-based sales system in accordance with claim 2, wherein:
    - at least one of said product fulfillment items comprises a hard good identifier; and
    - said creation **computer** is programmed to transmit said hard good identifier to said merchant **computer** with said digital advertisements.
  5. A method of operating a merchant **computer** in a network-based sales system comprising a **merchant database** that comprises a plurality of digital advertisements and a plurality of respective product fulfillment items, at least one creation **computer** for **creating** said **merchant database**, and at least one merchant **computer** for causing said digital advertisements to be transmitted to a user and for causing advertised products to be transmitted to said user, and at least one **payment computer**, said creation **computer**, said merchant **computer**, and said **payment computer** being **interconnected by a public packet switched computer network**, said method comprising the steps of:
    - receiving, at said merchant **computer**, said digital advertisements and said product fulfillment items, said digital advertisements and said product fulfillment items having been transmitted over said network to said merchant **computer** by said creation **computer**, said **merchant database** comprising said digital advertisements and said product fulfillment items having been **created** by said creation **computer**;
    - receiving over said network a request for a digital advertisement from a user;
    - causing said digital advertisement to be sent to said user over said network;
    - receiving over said network from said user a **product request message** identifying an advertised product;
    - receiving over said network an **access message** created by said **payment computer**; and
    - causing said product to be sent to said user in accordance with a product fulfillment item corresponding to said product and based upon receipt by the merchant **computer** of the **access message**.
  15. A hypertext statement system, comprising:
    - a client **computer** for operation by a client user; and one or more server **computers** for operation by a server user;
    - the client computer and the server computers being interconnected by a public packet switched computer network;
    - at least one of the server **computers** being programmed to **record** information pertaining to purchase transaction records **in a database**, and to transmit a **statement document** comprising the purchase transaction records to the client **computer** over the network;
    - the client **computer** being programmed to display the **statement document** to receive a request from the client user to display transaction details corresponding to a portion of the **statement document** displayed by the client **computer**, and to cause a **transaction detail hypertext link** corresponding to the portion of the **statement document** to be activated;

at least one of the server **computers** being programmed to respond to activation of the **transaction detail hypertext link** by transmitting the transaction details to the client **computer** over the network as a transaction detail document.

16. A method of operating a server **computer** in a hypertext statement system comprising a client **computer** for operation by a client user, and one or more server **computers** for operation by a server user, the client **computer** and the server **computers** being **interconnected by a public packet switched computer network**, the method comprising the steps of:

**recording**, at one of the server **computers**, information pertaining to purchase transaction records **in a database**; and

transmitting a **statement document** comprising the purchase transaction records to the client **computer** over the network;

the client **computer** being programmed to display the **statement document**, to receive a request from the client user to display transaction details corresponding to a portion of the **statement document** displayed by the client **computer**, and to cause a **transaction detail hypertext link** corresponding to the portion of the **statement document** to be activated;

at least one of the server **computers** being programmed to respond to activation of the **transaction detail hypertext link** by transmitting the transaction details to the client **computer** over the network as a transaction detail document.

17. A network-based sales system, comprising:

at least one buyer **computer** for operation by a user desiring to buy products;

at least one shopping cart computer; and

a shopping cart database connected to the shopping cart computer;

the buyer computer and the shopping cart computer being interconnected by a public packet switched computer network;

the buyer **computer** being programmed to receive a plurality of requests from a user to **add a plurality of respective products to a shopping cart** in the **shopping cart database**, and, in response to the requests to add the products, to send a plurality of respective **shopping cart messages** over the network to the **shopping cart computer** each of which comprises a product identifier identifying one of the plurality of products and at least one of which comprises a universal resource locator;

the shopping cart computer being programmed to receive the plurality of shopping cart messages, to modify the shopping cart in the shopping cart database to reflect the plurality of requests to add the plurality of products to the shopping cart, and to cause a payment message associated with the shopping cart to be created, the payment message comprising a universal resource locator; and

the buyer **computer** being programmed to receive a request from the user to purchase the **plurality of products added to the shopping cart** and to cause the **payment message** to be activated to initiate a payment transaction for the **plurality of products added to the shopping cart**;

the **shopping cart** being a stored representation of a collection of products, the **shopping cart database** being a **database** of stored representations of collections of products, and the **shopping cart computer** being a **computer** that **modifies** the stored representations of collections of products in the **database**.

18. A method of operating a **shopping cart computer** in a **public packet switched computer network** comprising at least one buyer **computer** for operation by a user desiring to buy products, at least one **shopping cart computer**, and a **shopping cart database connected to the shopping cart computer**, the method comprising the steps of:

receiving, at the **shopping cart computer**, a plurality of **shopping cart messages** sent over the network to the **shopping cart computer** by the buyer **computer** in response to receipt of a plurality of requests from a user to **add a plurality of respective products to a shopping cart** in the **shopping cart database**, each of the **shopping cart messages** comprising a product identifier identifying one of the plurality of products and at least one of which comprises a universal resource locator;

modifying the shopping cart in the shopping cart database to reflect the plurality of requests to add the plurality of products to the shopping cart; and  
 causing a **payment message** associated with the **shopping cart** to be created, the **payment message** comprising a universal resource locator;  
 the buyer **computer** being programmed to receive a request from the user to purchase the **plurality of products added to the shopping cart** and to cause the **payment message** to be activated to initiate a payment transaction for the **plurality of products added to the shopping cart**;  
 the **shopping cart** being a stored representation of a collection of products, the **shopping cart database** being a **database** of stored representations of collections of products, and the **shopping cart computer** being a **computer** that **modifies** the stored representations of collections of products in the **database**.

35. A network-based sales system, comprising:

at least one buyer **computer** for operation by a user desiring to buy products;  
 at least one shopping cart computer; and  
 a shopping cart database connected to the shopping cart computer;  
 the buyer computer and the shopping cart computer being interconnected by a public packet switched computer network;  
 the buyer **computer** being programmed to receive a plurality of requests from a user to **add a plurality of respective products to a shopping cart in the shopping cart database**, and, in response to the requests to add the products, to send a plurality of respective **shopping cart messages** over the network to the **shopping cart computer** each of which comprises a product identifier identifying one of the plurality of products;  
 the shopping cart computer being programmed to receive the plurality of shopping cart messages, and to modify the shopping cart in the shopping cart database to reflect the plurality of requests to add the plurality of products to the shopping cart; and  
 the buyer **computer** being programmed to receive a request from the user to purchase the **plurality of products added to the shopping cart** and to cause a **payment message** to be activated to initiate a payment transaction for the **plurality of products added to the shopping cart**;  
 the **shopping cart** being a stored representation of a collection of products, the **shopping cart database** being a **database** of stored representations of collections of products, and the **shopping cart computer** being a **computer** that **modifies** the stored representations of collections of products in the **database**.

36. A method of operating a **shopping cart computer** in a **public packet switched computer network** comprising at least one buyer **computer** for operation by a user desiring to buy products, at least one **shopping cart computer**, and a **shopping cart database connected to the shopping cart computer**, the method comprising the steps of:

receiving, at the **shopping cart computer**, a plurality of **shopping cart messages** sent over the network to the **shopping cart computer** by the buyer **computer** in response to receipt of a plurality of requests from a user to **add a plurality of respective products to a shopping cart in the shopping cart database**, each of the **shopping cart messages** comprising a product identifier identifying one of the plurality of products; and  
 modifying the shopping cart in the shopping cart database to reflect the plurality of requests to add the plurality of products to the shopping cart;  
 the buyer **computer** being programmed to receive a request from the user to purchase the **plurality of products added to the shopping cart** and to cause a **payment message** to be activated to initiate a payment transaction for the **plurality of products added to the shopping cart**;  
 the **shopping cart** being a stored representation of a collection of products, the **shopping cart database** being a **database** of stored representations of collections of products, and the **shopping cart computer** being a **computer** that **modifies** the stored representations of collections of products in the **database**.

